

# **Western DataCom MobileCom™ 104**

## **Application Note**

### **Activation on the Sprint Network**

Reference: MBCOM\_US5A25\_spt

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## 1 Overview

This document describes in detail all steps required to activate a MobileCom™ CDMA modem on the Sprint network. The procedures described below assume that the modem has already been properly provisioned for the Sprint network.

## 2 Accessing MobileCom via Telnet

To access the MobileCom™ using Telnet from the MAR console port perform the following steps:

### 2.1 Enter configuration Mode

```
Router# config t
Enter configuration commands, one per line. End with CNTL^Z.
```

### 2.2 Configure Serial Interface

```
Router(config-if)# interface serial 1/2
Router(config-if)# physical-layer async
Router(config-if)# no ip address
Router(config-if)# encapsulation ppp
Router(config-if)# dialer in-band
Router(config-if)# async mode interactive
```

### 2.3 Configure the line

```
Router(config-if)# line 3
Router(config-line)# exec-timeout 0 5
Router(config-line)# modem inout
Router(config-line)# no exec
Router(config-line)# transport preferred all
Router(config-line)# transport input all
Router(config-line)# transport output all
Router(config-line)# stopbits 1
Router(config-line)# speed 115200
Router(config-line)# flowcontrol hardware
```

### 2.4 Create loopback address

```
Router(config)# interface loopback 0
Router(config-int)# ip address 10.10.1.5 255.255.255.255
Router(config0int)# end
Router# copy run start
```

## 2.5 Initiating the telnet session

With a console cable connected to the MAR and a Hyperterminal or equivalent session started enter the following commands to access the MobileCom™

```
Router# telnet 10.10.1.5 2003  
Trying 10.10.1.5, 2003 ... Open
```

```
AT <cr> (depending on configuration this may not be echoed back to screen)  
OK
```

```
ATE1 <cr> (Turns local echo on)  
OK
```

```
AT+GSN <cr> (queries MobileCom for ESN; electronic serial number)  
+GSN: F60C4E48
```

```
AT+CSQ <cr> (check signal strength 0-31 with 31 being strongest)  
112, 12, 99
```

With access to the MobileCom™ established follow the necessary steps for activation.

## 3 Activation on the Sprint Network

To activate the MobileCom™ on the Sprint network, follow the steps described below:

### 3.1 Obtain Activation Parameters

Obtain a MDN (Mobile Directory Number) and MSID (Mobile Station ID) from Sprint as well as the lock code. You can do this by calling customer care at 888-788-4727 for business accounts or 888-211-4727 for personal accounts.

### 3.2 Activation by using AT command

Use AT commands to populate MDN, MIN1, and MIN2.

Follow the procedure described below:

1. Connect to the modem using the Telnet access explained above.
2. Unlock the modem with the command `AT+WSPC=1,<The 6 digit SPC code is required>` (The Service Provisioning Code aka the Master Subsidy Lock is a 6 digit value). If the SPC code is correct, the module responds with "OK".

3. Populate the MDN, type in the command, AT+WMDN =<10 digit MSID>. For example AT+WMDN=4408351510.
4. Populate the MSID, type in AT+WIMI=31000<10 digit MDN>. For example, AT+WIMI=310002165551212. The modem responds with "OK" after both of these commands.
5. Commit the values to memory, type in AT+WCMT=1. The modem should reset.

*Note: Due to a change in the Sprint setup the MDN and the MSID are swapped in the setup shown above this is not an error. You must set the MSID value in the location where the MDN is called for and set the MDN value where the MSID is called for.*

### 3.3 Activation for Data

To activate the modems data parameters, follow this process:

1. Type the command AT+WIOTA=1. The modem should respond with "Preparing data services" and then "OK". This is an indication that the IOTA (Internet, Over The Air) session has begun. The IOTA session will take approx. 3 to 4 minutes. After the 3 to 4 minutes the modem should respond with "Please retry". This is an indication that the IOTA session has completed and 1xRTT data calls are activated.

### 3.4 Activation Test

In order to ensure activation a data call can be established with the Sprint Network. To test use the existing Telnet session to dial the call, type ATD#777 this will initiate the call. After entering the command you should receive a CONNECT followed by garbage streaming to the screen. This garbage is the PPP negotiation traffic from the Sprint network indicating your modem is active and ready for use.

Western DataCom Technical Support is available to support you in your activation efforts with the various carriers as well as configuration of the Cisco Mobile Access Router. Our office hours are Monday through Friday 9:00 AM to 6:00PM EST and we can be reached at:

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